

# What types of severe weather do we have in this area?

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Grade K

**Unit Essential Question:** What are the different types of severe weather?

**Teacher Background:**

**Lesson Overview:**

Students will identify and describe different forms of severe weather that occur during spring and summer, and develop an understanding for each type. Topics that will be covered will be: tornadoes, large hail, strong wind, heavy rain, and lightning. The primary emphasis of this activity is for communicating terminology.

**Potential Misconceptions:**

Strong to severe storms does not form in the northeast section of the United States.

**Lesson Goals:**

Objective:	Students will be able to demonstrate knowledge of terms through question and answer.
Learning Target:	Use weather icons and graphics to describe weather conditions to familiarize students of the different forms of severe weather that is common to the region.

**Standard Information**

<b>Performance Expectation (PE)</b>	<b>KESS3-2: Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.</b>
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Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<b>Obtaining, Evaluating, and Communicating Information</b> Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information. <ul style="list-style-type: none"> <li>Read grade-appropriate texts and/or use media to obtain scientific information to describe patterns in the natural world.</li> </ul>	<b>ESS2.D: Weather and Climate</b> Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. <b>ESS3.B: Natural Hazards</b> Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events.	<b>Cause and Effect</b> Events have causes that generate observable patterns.

**Lesson Preparation:**

Materials:	Group Size:	Management:
Understanding Severe Weather Hazards Chart (chart shown at end of lesson)  Weather icons (pictures at end of the lesson)	<b>Whole class</b>	At the end of this lesson table, you will find an understanding severe weather hazards graphic, and images that you can use with your students to discuss the different types of severe weather.

**Lesson Plan:**

Suggested Timing	Agenda:
10 min	Look at the weather icons. What do they each symbolize? What do they mean?
15 min	What types of weather occur in the spring and in summer? What do you notice in spring and summer sky vs. the winter sky?
15 min	How do you react for each severe weather event?

**Teaching Procedures:**

Teaching Procedures:	Teaching Notes
Engage 1. Ask the students what each weather icon resembles. Ask the students if they know what kind of damage each	

<p>kind of weather event can create. Talk about how weather good or bad can happen during the day or night. Discuss that the key to being safe is always being prepared understanding the different types of weather.</p> <p>2. Ask the students what kind of weather they see when it is warm outside. (Warm in this sense means spring and summer months) Ask the students to describe what each weather event looks like: big, small, powerful, white, dark. Do clouds during weather events look like cotton candy, cauliflower, flat, round? Ask if clouds can turn (aka, rotate)? Are the clouds white, black, gray, light or dark? Engage the students to talk about what the atmosphere looks like when severe weather takes place.</p> <p>3. Ask the students if they know what to do when severe weather moves into their area. The key to being safe and being resilient to any force of nature is to plan ahead and to practice a plan. Ask the students where they should go if a tornado would strike or a very strong thunderstorm moves into the area, if they were outside playing and they heard thunder or saw lightning, if they came across running water, or hail started to fall from the sky? Mother nature is an incredible force of power and should not be taken lightly.</p>	
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#### Science Notebook:

***Make sure students DATE each page of their notebook.***

Ask the students to draw a picture of a tornado, thunderstorm or flood then write about what they think they should be doing when they see one occurring or the event is expected.

#### Assessment:

Formative Assessment: In their Science Notebooks draw a picture of one of the action statements and its associated weather event.

#### Literacy Connections:

Vocabulary		Included or Suggested Texts (Title; <i>Author</i> , Year, Type (book/article), Grade, LEXILE)
New or Recently Introduced	Familiar Terms	
Tornado Lightning Heavy Rain Strong Wind Large Hail		

#### Differentiation:

*Below are some suggestions for modifying lessons for individuals or groups of students.*

Students that may need more challenge:	Students that may need more support:
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#### Think Outside the BOX!

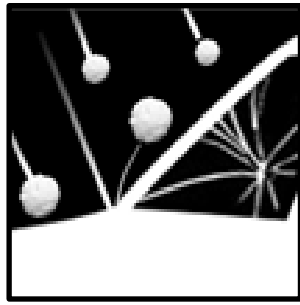
ELA  
Math  
Others:

#### Reproducible Student Materials:

See next pages

# Understanding Severe Weather Events

 <b>Tornado</b>	<p>Tornadoes are violent rotating columns of air generated from a thunderstorm that reaches the ground. Tornadoes can destroy buildings and cause significant damage.</p> <p><u>Action:</u> Take shelter immediately in a sturdy structure</p>
 <b>Large Hail</b>	<p>Hail are pieces of ice that fall from the sky during a thunderstorm. Hail comes in many shapes and sizes and can produce damage to vehicles, crops and buildings.</p> <p><u>Action:</u> Move indoors away from windows</p>
 <b>Strong Wind</b>	<p>Strong winds are powerful downward movements of air (a downdraft) in a severe thunderstorm. Winds can be as strong as 80 to 100 mph and knock over trees and damage buildings.</p> <p><u>Action:</u> Move indoors and stay away from all windows</p>
 <b>Heavy Rain</b>	<p>Heavy rain is an abundant amount of rainfall in a short period of time. Thunderstorms that are slow moving and have very humid air produce heavy rain. Heavy rain causes flash flooding.</p> <p><u>Action:</u> Move to higher ground fast</p>
 <b>Lightning</b>	<p>Lightning is a giant spark of electricity that is 5 times hotter than the sun in the atmosphere, or between the atmosphere and the ground. Lightning occurs during thunderstorms and is extremely dangerous.</p> <p><u>Action:</u> When thunder roars, go indoors!</p>
<div>     <a href="https://www.nws.noaa.gov/os/thunderstorm">nws.noaa.gov/os/thunderstorm</a> </div> <div> Weather Forecast Office  <b>Binghamton, NY</b> </div> <div> <a href="https://weather.gov/bgm">weather.gov/bgm</a>   <a href="https://twitter.com/NWSBinghamton">@NWSBinghamton</a> </div>	



**If you have any suggestions to improve the lesson, please contact us at:  
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